

§ 130.340

§ 130.340 Compass.

Each vessel must be fitted with a compass suitable for the intended service of the vessel. Except aboard a vessel limited to daytime operation, the compass must be illuminated.

Subpart D—Automation of Unattended Machinery Spaces

§ 130.400 Applicability.

This subpart applies to each vessel of 100 or more gross tons where automated systems either replace specific personnel in the control and observation of the propulsion system and machinery spaces or reduce the level of crew associated with the vessel's engine department.

§ 130.410 General.

(a) Arrangements must be such that under any operating condition, including maneuvering, the safety of the vessel is equivalent to that of the same vessel with the machinery spaces fully tended and under direct manual supervision.

(b) Acceptance by the Coast Guard of automated systems to replace specific crew members or to reduce overall requirements for crew members depends upon the—

(1) Capabilities of the automated system;

(2) Combination of crew members, equipment, and systems necessary to ensure the safety of the vessel, personnel, and environment in each operating condition, including maneuvering; and

(3) Ability of the crew members to perform each operational evolution, including to cope with emergencies such as fire and failure of control or monitoring systems.

§ 130.420 Controls.

Each piece of machinery under automatic control must have an alternative manual means of control.

§ 130.430 Pilothouse control.

Each OSV must have, at the pilothouse, controls to start a fire pump, charge the fire main, and monitor the pressure in the fire main.

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§ 130.440 Communications system.

(a) Each OSV must have a communications system to immediately summon a crew member to the machinery space wherever one of the alarms required by § 130.460 of this subpart is activated.

(b) The communications system must be either—

(1) An alarm that—

(i) Is dedicated for this purpose;

(ii) Sounds in the crew accommodations and the normally manned spaces; and

(iii) Is operable from the pilothouse; or

(2) A telephone operated from the pilothouse that reaches the master's stateroom, engineer's stateroom, engine room, and crew accommodations that either—

(i) Is a sound-powered telephone; or

(ii) Gets its power from the emergency switchboard or from an independent battery continuously charged by its own charger.

§ 130.450 Machinery alarms.

(a) Each alarm required by § 130.460 of this subpart must be of the self-monitoring type that will both show visibly and sound audibly upon an opening or break in the sensing circuit.

(b) The visible alarm must show until it is manually acknowledged and the condition is corrected.

(c) The audible alarm must sound until it is manually silenced.

(d) No silenced alarm may prevent any other audible alarm from sounding.

(e) Each OSV must be provided with means for testing each visible and audible alarm.

(f) Each OSV must provide battery power for the alarm required by § 130.460(a)(8) of this subpart.

§ 130.460 Placement of machinery alarms.

(a) Visible and audible alarms must be installed at the pilothouse to indicate the following:

(1) Loss of power for propulsion control.

(2) Loss of power to the steering motor or for control of the main steering gear.

(3) Engine-room fire.

- (4) High bilge-level.
- (5) Low lube-oil pressure for each main propulsion engine and each prime mover of a generator.
- (6) For each main propulsion engine and each prime mover of a generator—
 - (i) High lube-oil temperature; and
 - (ii) High jacket-water temperature.
- (7) For each reduction gear and each turbocharger with a pressurized oil system—

- (i) Low lube-oil pressure; and
 - (ii) High lube-oil temperature.
- (8) Loss of normal power for the alarms listed in paragraphs (a)(1) through (a)(7) of this section.

(b) Sensors for the high-bilge-level alarm required by paragraph (a)(4) of this section must be installed in—

- (1) Each space below the deepest load waterline that contains pumps, motors, or electrical equipment; and
- (2) The compartment that contains the rudder post.

(c) Centralized displays must be installed in the machinery spaces to allow rapid evaluation of each problem detected by the alarms required by paragraph (a) of this section. Equipment-mounted gauges or meters are acceptable for this purpose, if they are grouped at a central site.

§ 130.470 Fire alarms.

(a) Each fire detector and control unit must be of a type specifically approved by the Commandant (CG-521).

(b) No fire-alarm circuit for the engine room may contain a fire detector for any other space.

(c) The number and placement of fire detectors must be approved by the cognizant OCMI.

[CGD 82-004 and CGD 86-074, 62 FR 49337, Sept. 19, 1997, as amended by USCG-2009-0702, 74 FR 49235, Sept. 25, 2009]

§ 130.480 Test procedure and operations manual.

(a) A procedure for tests to be conducted on automated equipment by the operator and the Coast Guard must be submitted to comply with § 127.110 of this subchapter.

- (b) The procedure for tests must—
 - (1) Be in a sequential-checkoff format;
 - (2) Include the required alarms, controls, and communications; and

(3) Set forth details of the tests.

(c) Details of the tests must specify status of equipment, functions necessary to complete the tests, and expected results.

(d) No tests may simulate conditions by misadjustments, artificial signals, or improper wiring.

(e) A detailed operations manual that describes the operation and indicates the location of each system installed to comply with this part must be submitted to comply with § 127.110 of this subchapter.

PART 131—OPERATIONS

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131.110 Notice and records.

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